Appl. No.: 10/706,612

Amdt. Dated February 21, 2006

Reply to Office Action Dated September 20, 2005

AMENDMENTS TO THE CLAIMS

Listing of Claims

This listing of claims replaces all prior versions, and listings, of claims.

1. (Currently amended). A method for the monitoring of a manufacturing process of a plurality of physical objects, said method comprising the steps of:

performing an analysis by using values of at least one process parameter of the manufacturing process of a plurality of physical objects;

determining one physical object from the plurality of physical objects which best characterizes the plurality of physical objects, based on the analysis of the at least one process parameter; and

selecting the one physical object which best characterizes the plurality of physical objects, for monitoring the manufacturing process.

marking physical objects in such a way that the associated physical objects can be taken as a random sample for the monitoring of the manufacturing process when they satisfy a prescribed selection criterion.

- 2. (Original). The method as claimed in claim 1, in which the physical object is a wafer.
- 3. (Original). The method as claimed in claim 1 or 2, in which the analysis is a statistical analysis.

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4. (Original). The method as claimed in one of claims 1 to 3, in which the values of the at least one process parameter are measured when the physical object is being manufactured.

- 5. (Currently amended). The method as claimed in one of claims 1 to 4, in which the physical objects of the random sample are physical object selected is subjected to a quality checking measurement for checking the quality of the respective physical object.
- 6. (Currently amended). The method as claimed in claim 5, in which, for ascertaining the variation of the qualities of the physical objects, a physical object for which the value of the at least one process parameter has a prescribed difference from the random sample physical object selected is additionally subjected to a quality checking measurement.
- 7. (Original). The method as claimed in claim 1 or 6, in which the statistical analysis comprises the ascertainment of the median of the values of the at least one process parameter.
- 8. (Original). The method as claimed in claim 1 or 7, in which the statistical analysis comprises the ascertainment of the arithmetic mean value of the values of the at least one process parameter.
- 9. (Withdrawn). A device for the monitoring of a manufacturing process of a plurality of physical objects with a processor which is set up in such a way that the following method steps can be carried out:

performance of an analysis by using values of at least one process parameter of the manufacturing process of the physical object;

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marking of physical objects when, as a result of the analysis, a prescribed selection criterion is satisfied, so that the associated physical objects can be taken as a random sample.

10. (Withdrawn). A computer-readable storage medium, in which a program for the monitoring of a manufacturing process of a plurality of physical objects is stored, which program has the following method steps when it is run by a processor:

performance of an analysis by using values of at least one process parameter of the manufacturing process of the physical object;

marking of physical objects when, as a result of the analysis, a prescribed selection criterion is satisfied, so that the associated physical objects can be taken as a random sample.

11. (Withdrawn). A computer program element for the monitoring of a manufacturing process of a plurality of physical objects, which has the following method steps when it is run by a processor:

performance of an analysis by using values of at least one process parameter of the manufacturing process of the physical object;

marking of physical objects when, as a result of the analysis, a prescribed selection criterion is satisfied, so that the associated physical objects can be taken as a random sample.